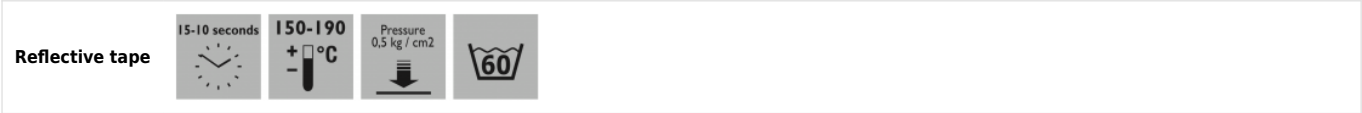
Reflektierendes Tape

Unser reflektierendes Tape ist in zwei Größen verfügbar. Wir bieten außerdem eine FR-Version für Uniformen mit flammenhemmenden Eigenschaften an.

Reflective Tape / Reflective Tape FR



Reflective Tape (scroll down for FR-version)

Description

Rolls of reflective material (grey, reflective) for application to work wear textiles for compliance to EN ISO 20471:2013 (EN 471:2003).
Article Numbers: Rolreflc 0025, 50 m length, and Rolreflc 0050, 45m length.

Application

Rolls for marking work wear according to reflective standards as required by standards for reflectivity for workwear.

Care

- Glass beads holding resin products might be damaged by extremely harsh washing or dry-cleaning conditions and the reflective performance and shelf life of the product could be significantly diminished as a result. For best retention of the reflective brilliance of the tapes, the following washing and dry-cleaning instructions must be strictly observed
- Do not pre-soak
- Do not apply high-alkaline stain-removal chemicals (e.g. pastes, salts or heavy-duty products)
- Do not use solvated detergents or micro-emulsions
- Do not use any bleaching agents
- Do not overdry. The surface temperature of reflective fabric should not exceed 120 °C

Home washing

- 30 °C to 60 °C: use a normal or programmed automatic washing process for colored garments. Apply only a main wash. In the case of machine washing, program time must not exceed 50 minutes and washing at 60°C must not exceed 12 minutes. Moreover, pH neutral detergents are generally recommended for washing

- **Warning!** Never bleach clothing. Chlorine bleach in particular is strictly prohibited. Use of perborate bleach at temperatures above 60 °C is also prohibited
- Tumble Dryer: dry clothes on „medium dry“ in commercially available household dryers
- Ironing: maintain an iron temperature at under 150 °C and do not steam iron

Industrial washing

When washing high visibility warning garments, follow the following instructions:

- Use a front-loading washing machine. Do not use tunnel washers
- Wash high visibility warning clothing separately from normal coloured work wear
- Use a programmed washing process of pre-wash, main wash, and three rinse cycles with inter spin during cool down
- Loading factor: 65 – 80%
- Washing water ratio: 1:3 – 1:4.5
- Under 85°C: washing temperature should not exceed 85°C and total time for pre-wash and main wash should not exceed 20 minutes
- Do not use high-alkaline detergents. Use low- and medium-alkaline detergents
- The detergents may not contain any free sodium hydroxide or potassium hydroxide
- Proposed dosage of detergent should be put into the washing lye to keep its potential of hydrogen below pH 11.7
- **Do not bleach!** Do not use chlorine or per borate bleaches
- Do not leave garments in wash bath even in low concentration bleach solution

Tumble Dryer

- Do not under load the dryer. Loading ratio: 1: 1.5
- Drying time should not exceed 20 minutes
- Tunnel drying is not recommended
- Do not over dry
- Surface temperature of reflective cloth should not exceed 120 ° ironing
- Maintain an iron temperature at under 150 °C and do not use a steam iron.

Dry Cleaning

- Dry-cleaning should be carried out with a pre- and main cleaning process. Moderate mechanical action is recommended
- Max. solvent temperature: 30 °C
- Max. drying temperature: 70 °C
- Max. drying time: 15 min
- Max.program time: 60 min

Limitations of use

None, when washing instructions of the underlying textile are followed.

Physical properties

- Color: Silver (grey)
- Rolls:
  - Roll length: 50 m
  - Core diamaeter: 50 mm
- Heat sealable adhesive: thermoplastic polyurethane

Before sealing

Ensure that the to be marked textile is free of lint, dust, dirt and no seams, zipper, buttons etc. are near the place where the heat sealing will be performed.
Remark: Good bonding can be prevented in pre-conditioned fabrics with dwr (durable water repellent) or FR (flame retardant) coatings.

Heat seal instructions

- Temperature between 120 °C and 190 °C. (Depends on type of fabric)
- Time: 15 – 20 seconds
- Pressure: 2 – 3 kg/cm (2. 2 – 4 bar)
- Remove release film on top after a short cool down period

** *Be aware that the ideal application settings depend on various factors such as type of fabric, type of heat press, surroundings and other factors. We advise you to always perform application – and wash testing before starting production.*

Storage and shelf life

Keep the patches and rolls in their original packing, out of direct sunlight, in a cool and dry place.

Health and safety precautions

No specific safety measures are required when working with this product.

Exposure controls / personal protection

Ensure a sufficient amount of fresh air when there is a risk of release of fumes, for instance when heat- ing the product.
Personal protection equipment:

- For the hands: None
- For the eyes: None
- For the skin: None
- For breathing: None

Hazards identification

The product has not been subjected to classification following the European legislation. Special hazards designation for humans and environment: Not applicable.

Reflective Tape FR

Description

Rolls of reflective material (grey, reflective) for application to work wear textiles for compliance to EN ISO 20471:2013 (EN 471:2003) with flame retardant properties.

Application

Rolls for marking work wear according to reflective standards as required by standards for reflectivity for workwear.

Care

Thermopatch Reflective FR is an open lens type material containing microscopic glass beads bonded to a heat transfer active layer. In darkness and in reduced visibility the retro reflective properties of the material ensure a reflection of incident light.

- Satra reference: SPC0216971/1331
- Certificates: EN ISO 20471:2013 – Class II
- Washability: 50 x 60 °C and 70 °C / ISO6330
- Industrial washing: 50 x 75 °C ISO15797 + cabinet drying at 160°C
- Industrial washing: 50 x 75°C and 90 °C: ISO15797
- Dry cleaning (P): 25 cycles
- Flammability performance: EN 469
- Color: Silver

Overview minimum reflection values class II (EN ISO 20471) in cd/(lx.m²), observation angle 12 ° :

Observation angle	Entrance angle	Thermopatch Reflective FR	Minimum requirement EN ISO 20471
12°	5°	550	330
20°	5°	360	250

Limitations of use

None, when washing instructions of the underlying textile are followed.

Physical properties

- Color: Silver (grey)
- Rolls:
  - Roll length: 50 m
  - Core diameter: 50 mm
- Heat sealable adhesive: thermoplastic polyurethane

Before sealing

Ensure that the to be marked textile is free of lint, dust, dirt and no seams, zipper, buttons etc. are near the place where the heat sealing will be performed.
Remark: Good bonding can be prevented in pre-conditioned fabrics with a dirt or water repellant coating.

Heat seal instructions

- Application advice for Thermopatch Reflective FR (Flame Retardant)
- Temperature setting advised for application from/up to: 150 °C -165 °C
- Time: 15 – 20 seconds
- Pressure: 2 – 3 kg/cm (2. 2 – 4 bar)
- Remove release film on top after a short cool down period.

** *Be aware that the ideal application settings depend on various factors such as type of fabric, type of heat press, surroundings and other factors. We advise to always perform application and wash testing before starting production.*

Storage and shelf life

Keep the patches and rolls in their original packing, out of direct sunlight, in a cool and dry place.
Health and safety precautions:
No specific safety measures are required when working with this product.

Exposure controls / personal protection

Ensure a sufficient amount of fresh air when there is a risk of release of fumes, for instance when heating the product.
Personal protection equipment:

- For the hands: None
- For the eyes: None
- For the skin: None
- For breathing: None

Hazards identification

The product has not been subjected to classification following the European legislation. Special hazards designation for humans and environment: Not applicable.

Disclaimer

This information is based on the current state of our knowledge. It is however, no guarantee of product features and no contractual relationship.
Recommended restrictions apply: This product should not be used for purposes other than specified.